STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

December 9, 2016

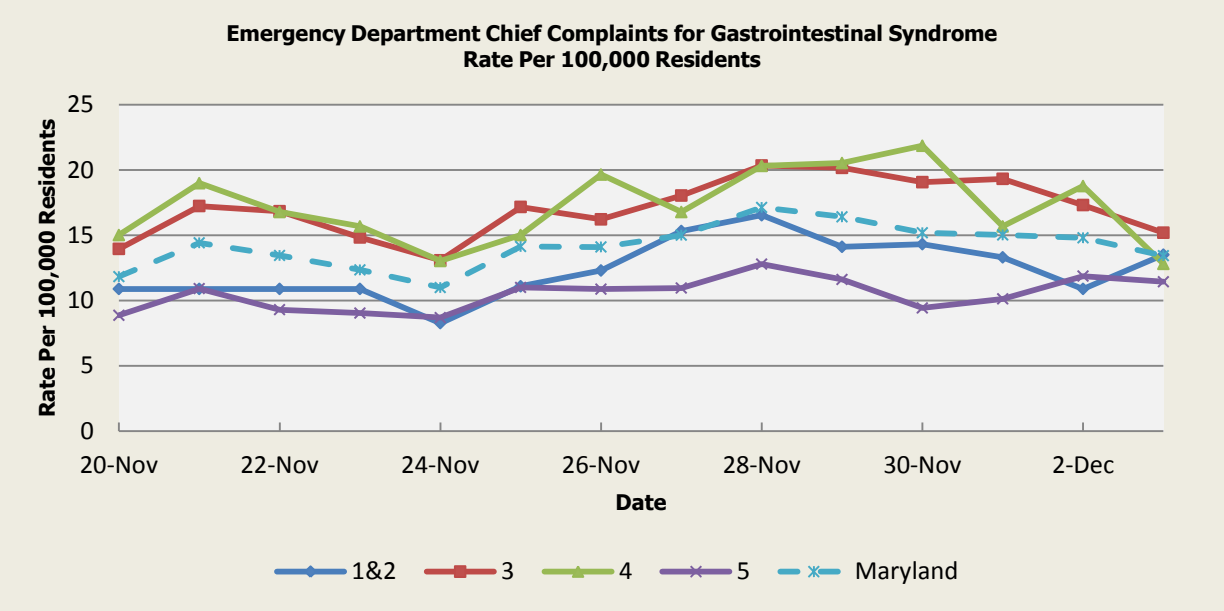
Public Health Preparedness and Situational Awareness Report: #2016:48
Reporting for the week ending 12/03/16 (MMWR Week #48)

CURRENT HOMELAND SECURITY THREAT LEVELS
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were four (4) gastroenteritis outbreaks reported this week: two (2) outbreaks of gastroenteritis in Nursing Homes (Region 3); two (2) outbreaks of gastroenteritis in Assisted Living Facilities (Region 3).

	Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.88	15.42	10.31	13.01
Median Rate*	12.70	14.47	14.80	10.17	12.75

* Per 100,000 Residents

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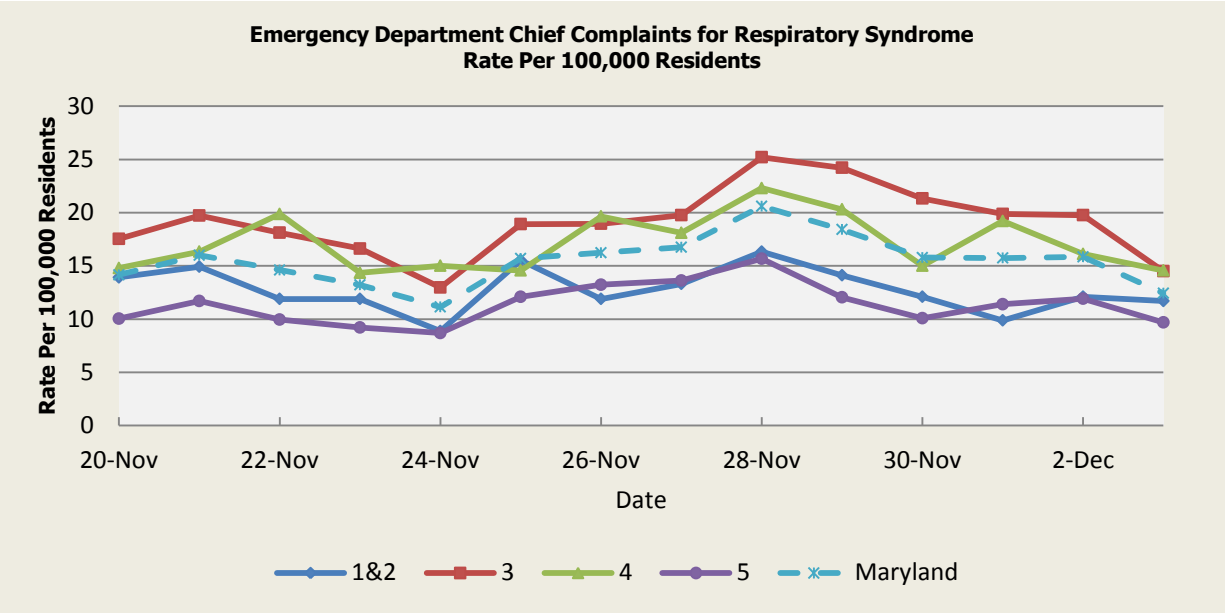
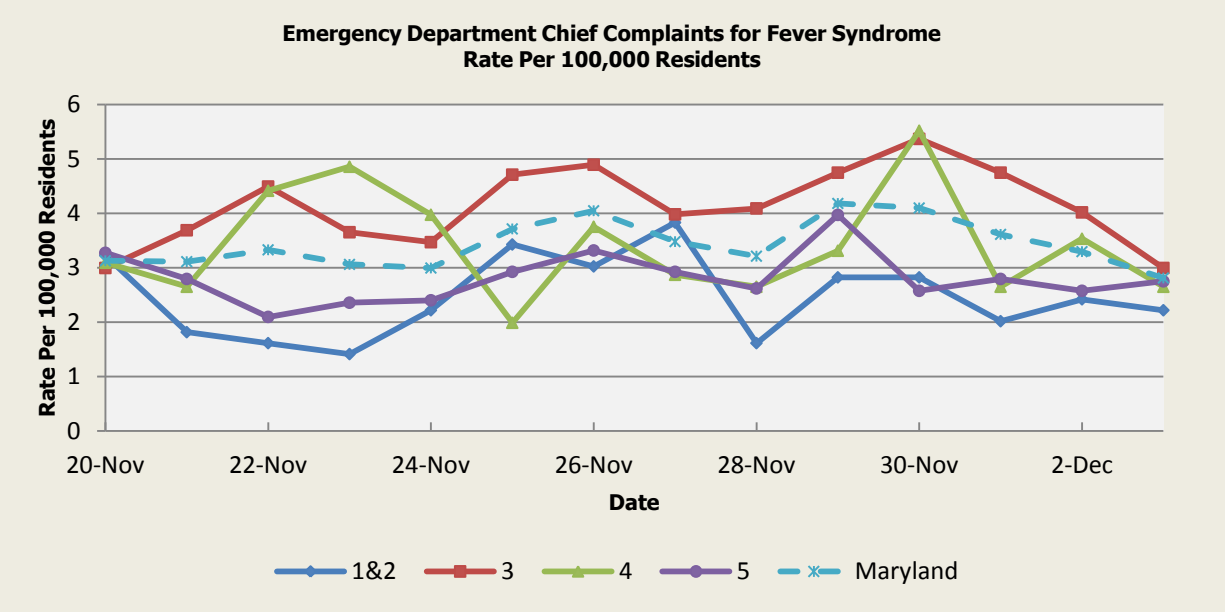


There was one (1) respiratory illness outbreak reported this week: 1 outbreak of Influenza Like Illness (ILI) in a Nursing Home (Region 5).

	Respiratory Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.12	14.04	9.94	12.34
Median Rate*	11.70	13.37	13.69	9.52	11.79

* Per 100,000 Residents



There were no fever outbreaks reported this week.

	Fever Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.07	3.80	3.93	3.09	3.48
Median Rate*	3.02	3.62	3.75	2.97	3.35

Per 100,000 Residents

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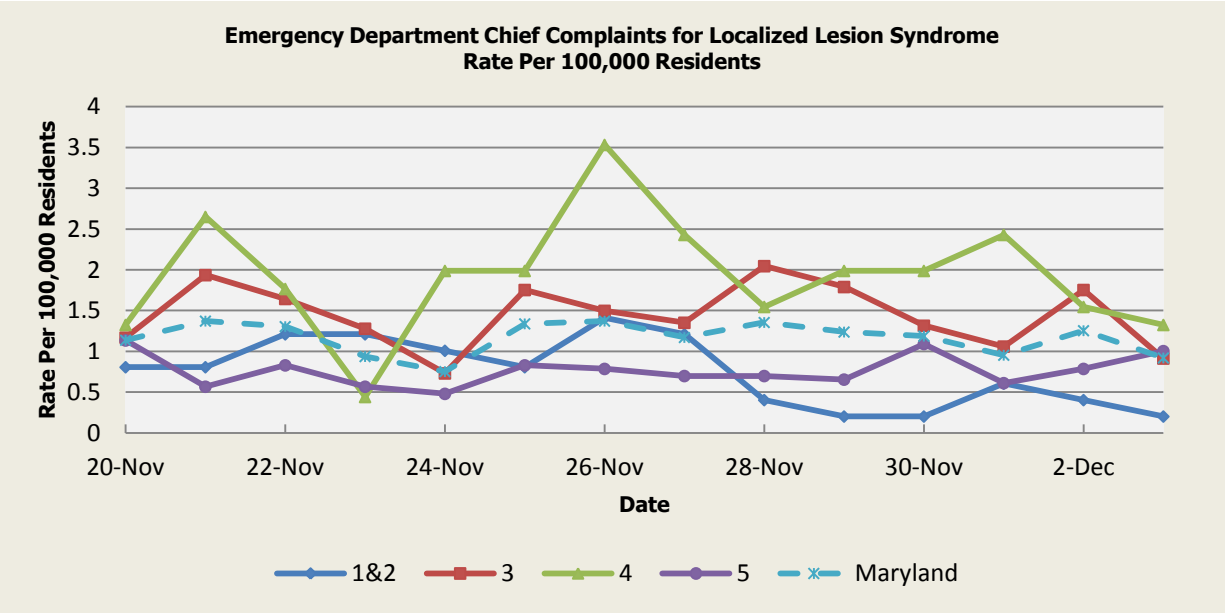
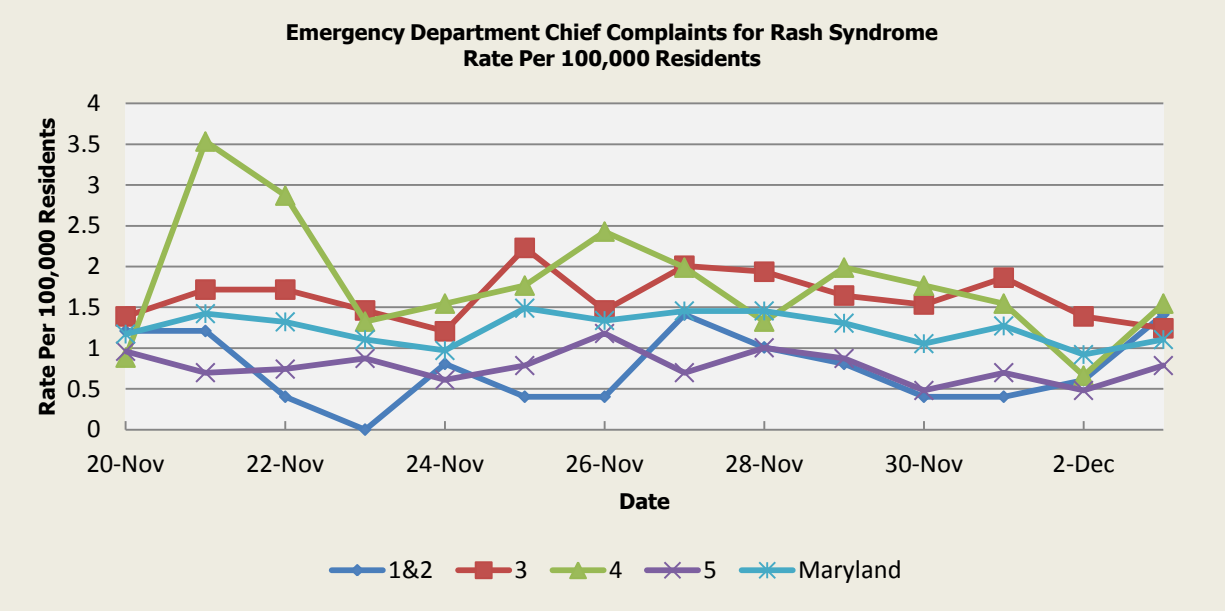


There were no localized lesion outbreaks reported this week.

	Localized Lesion Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.07	1.91	2.03	0.98	1.49
Median Rate*	1.01	1.86	1.99	0.92	1.44

* Per 100,000 Residents



There was one (1) rash illness outbreak reported this week: one (1) outbreak of SCABIES in an Assisted Living Facility (Region 3).

	Rash Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.75	1.75	1.04	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.39

* Per 100,000 Residents

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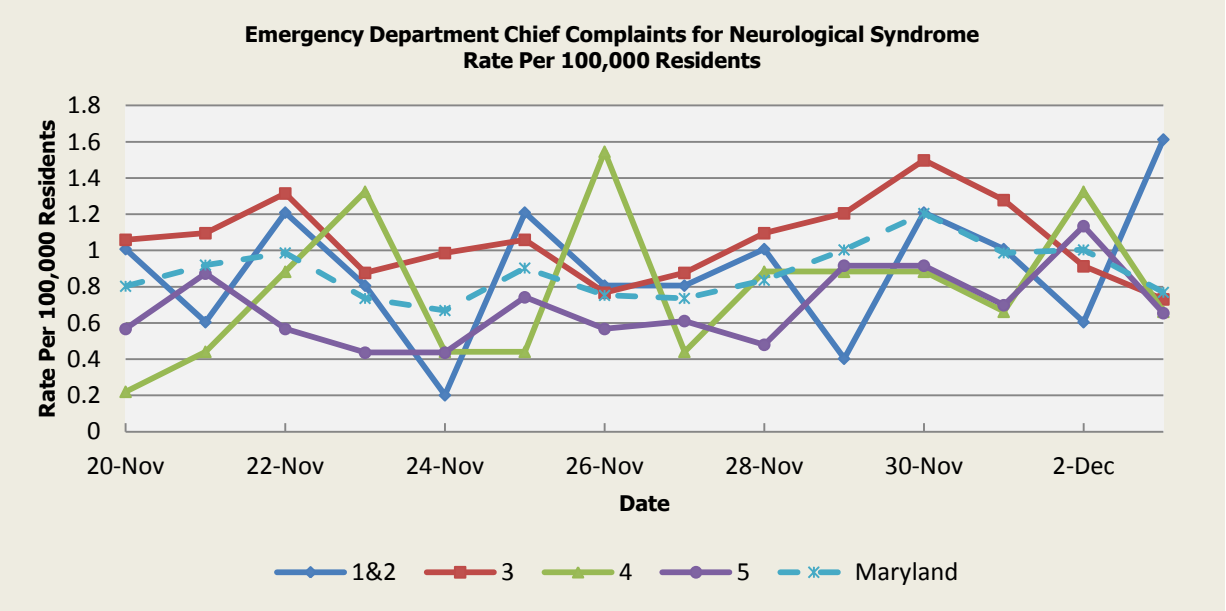
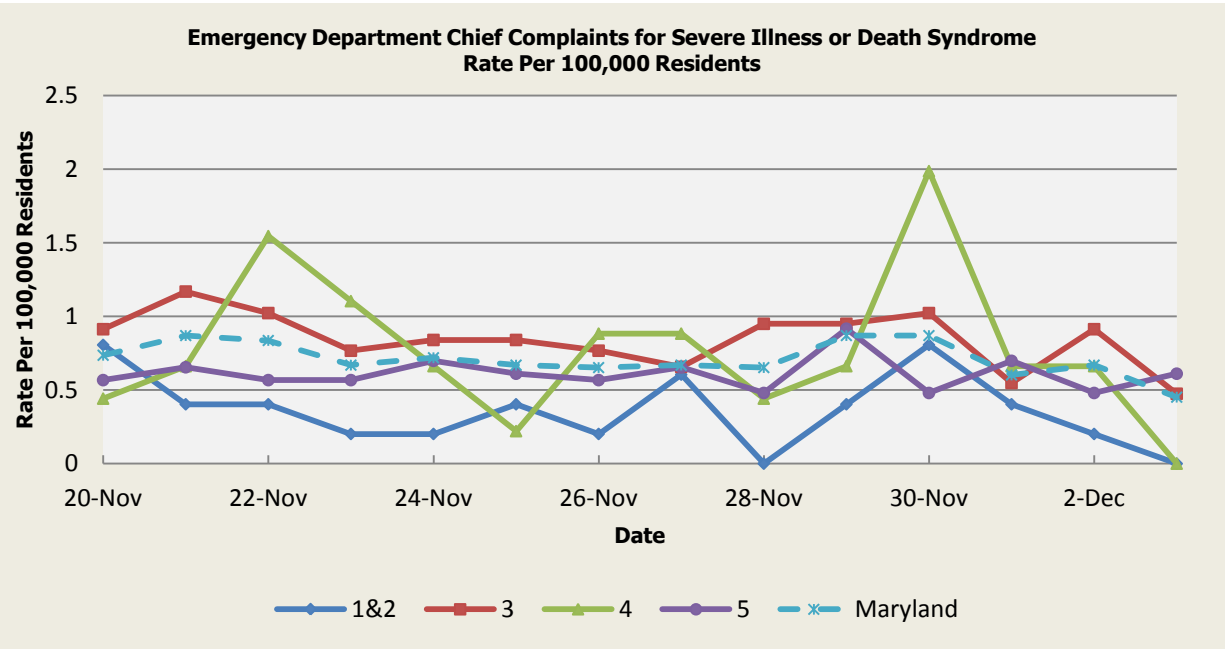


There were no neurological syndrome outbreaks reported this week.

	Neurological Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.73	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.57

* Per 100,000 Residents



There were no severe illness or death outbreaks reported this week.

	Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.70	0.95	0.84	0.44	0.73
Median Rate*	0.60	0.91	0.88	0.44	0.72

* Per 100,000 Residents

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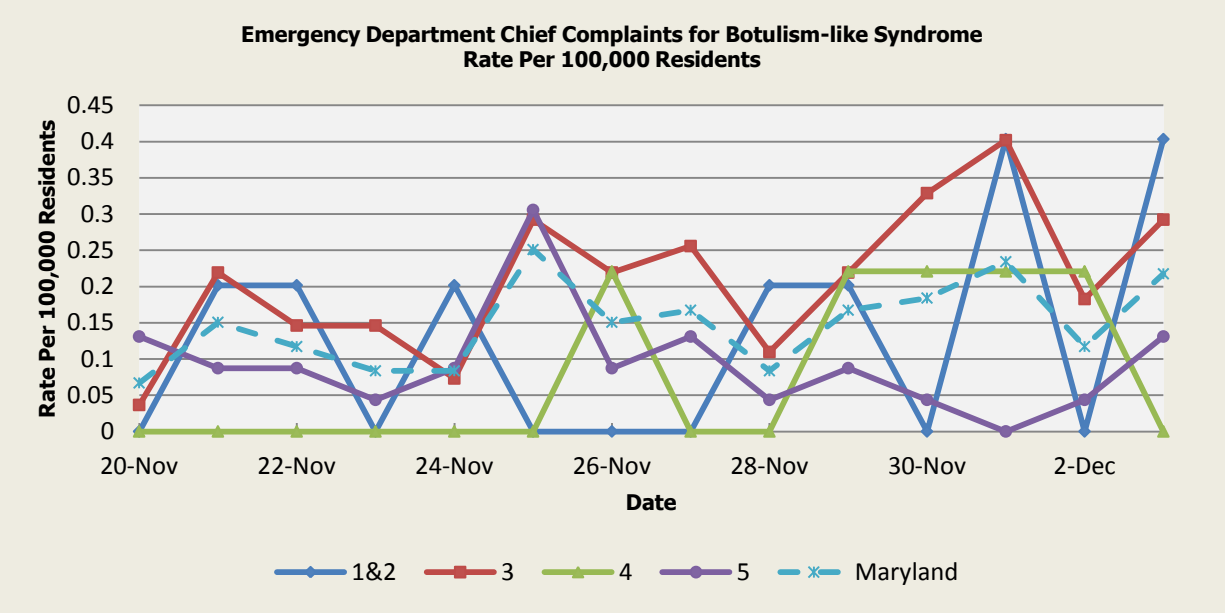
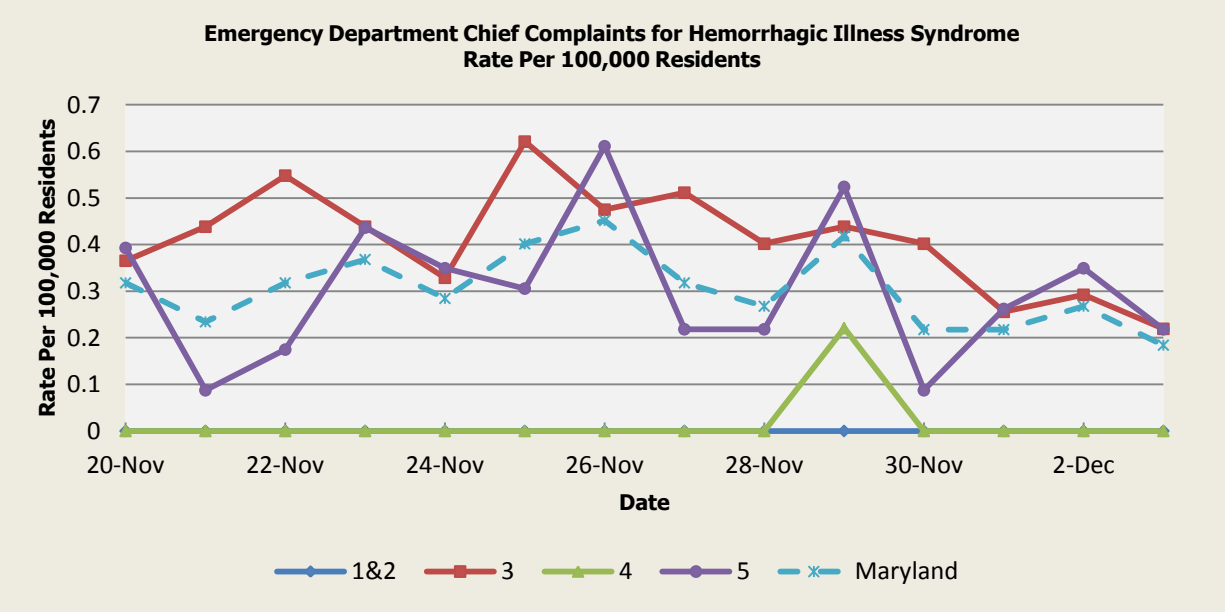
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 11/20 (Region 5), 11/21 (Regions 1&2, 3), 11/22 (Regions 1&2), 11/24 (Regions 1&2), 11/25 (Regions 3,5), 11/26 (Regions 3,4), 11/27 (Regions 3,5), 11/28 (Regions 1&2), 11/29 (Regions 1&2,3,4), 11/30 (Regions 3,4), 12/1 (Regions 1&2,3,4), 12/2 (3,4) and 12/3 (Regions 1&2,3,5). These increases are not known to be associated with any outbreaks.

	Botulism-like Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	0.04	0.05	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 11/20 (Region 3,5), 11/21 (Region 3), 11/22 (Regions 3,5), 11/23 (Regions 3,5), 11/24 (Regions 3,5), 11/25 (Region 3,6), 11/26 (Region 3,5), 11/27 (Region 3,5), 11/28 (Region 3,5), 11/29 (Regions 3,4,5), 11/30 (Regions 3), 12/1 (Regions 3,5), 12/2 (Regions 3,5) and 12/3 (Regions 3,5). These increases are not known to be associated with any outbreaks.

	Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.11	0.03	0.08	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

* Per 100,000 Residents

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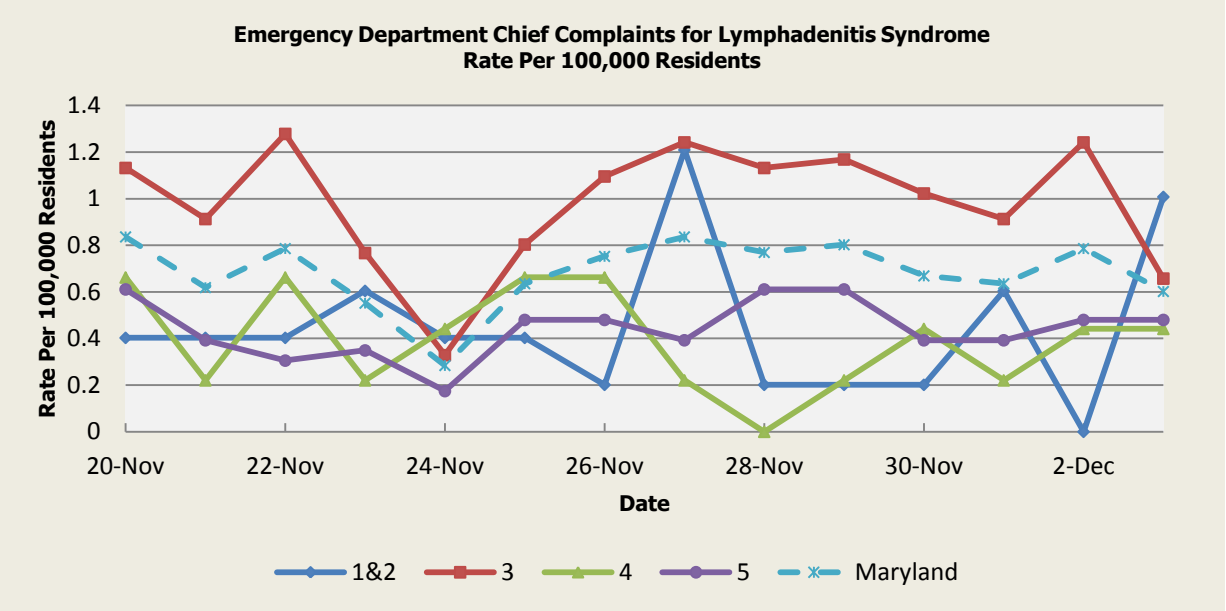

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 11/20 (Regions 3,5), 11/21 (Region 3), 11/22 (Region 3), 11/26 (Region 3), 11/27 (Region 1&2,3), 11/28 (Region 3,5), 11/29 (Regions 3,5), 11/30 (Region 3), 12/1 (Region 3), 12/2 (Region 3), and 12/3 (Regions 1&2). These increases are not known to be associated with any outbreaks.

	Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.51	0.34	0.31	0.40
Median Rate*	0.20	0.37	0.22	0.26	0.33

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

	Counts of Reported Cases‡					
Condition	**December**			**Cumulative (Year to Date)****		
Vaccine-Preventable Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Aseptic meningitis	3	31.8	30	315	430.4	433
Meningococcal disease	0	0	0	3	6.4	5
Measles	0	0.2	0	4	4.6	3
Mumps	1	0.4	0	19	38	14
Rubella	0	0	0	1	2.4	2
Pertussis	1	33.6	31	231	285.4	343
Foodborne Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Salmonellosis	1	47.8	48	745	859.6	867
Shigellosis	0	12.4	10	125	169.4	213
Campylobacteriosis	3	42.2	47	670	643.4	644
Shiga toxin-producing Escherichia coli (STEC)	0	8	7	180	116.6	106
Listeriosis	0	1.2	1	18	16	16
Arboviral Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
West Nile Fever	0	0	0	2	11.8	10
Lyme Disease	4	65.6	73	1720	1404.2	1500
Emerging Infectious Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Chikungunya	1	0.8	0	6	16.2	0
Dengue Fever	0	1.4	1	38	16	16
Zika Virus***	0	0	0	124	0.2	0
Other	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Legionellosis	1	8.4	7	141	156.8	158

‡ Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month

*** As of December 7, 2016, the total Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection is 156.

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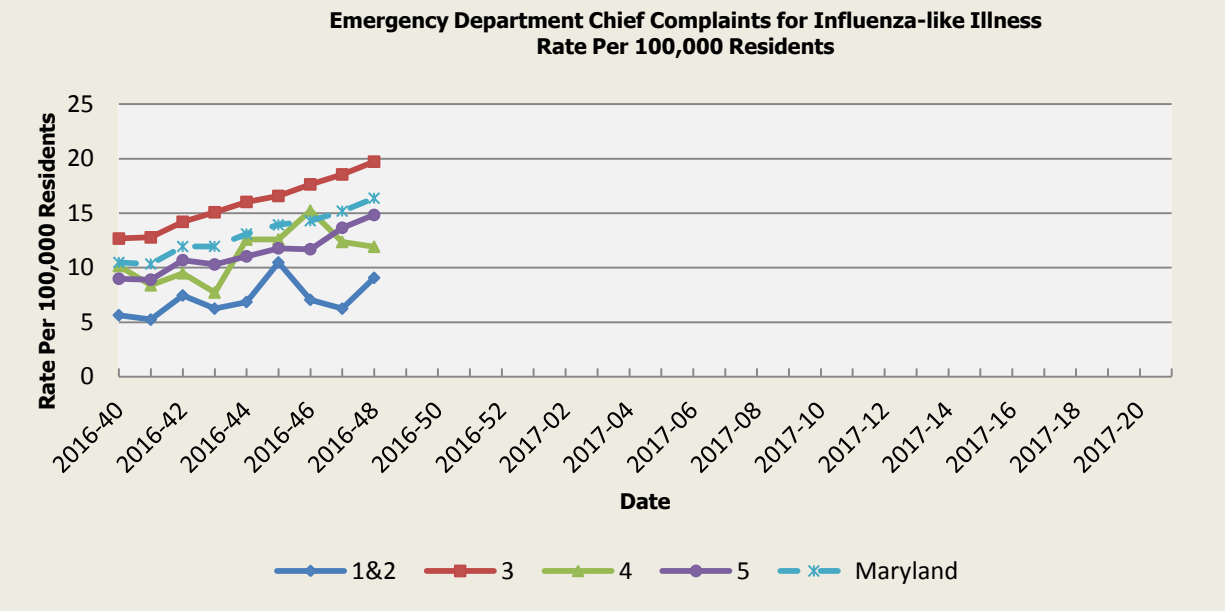
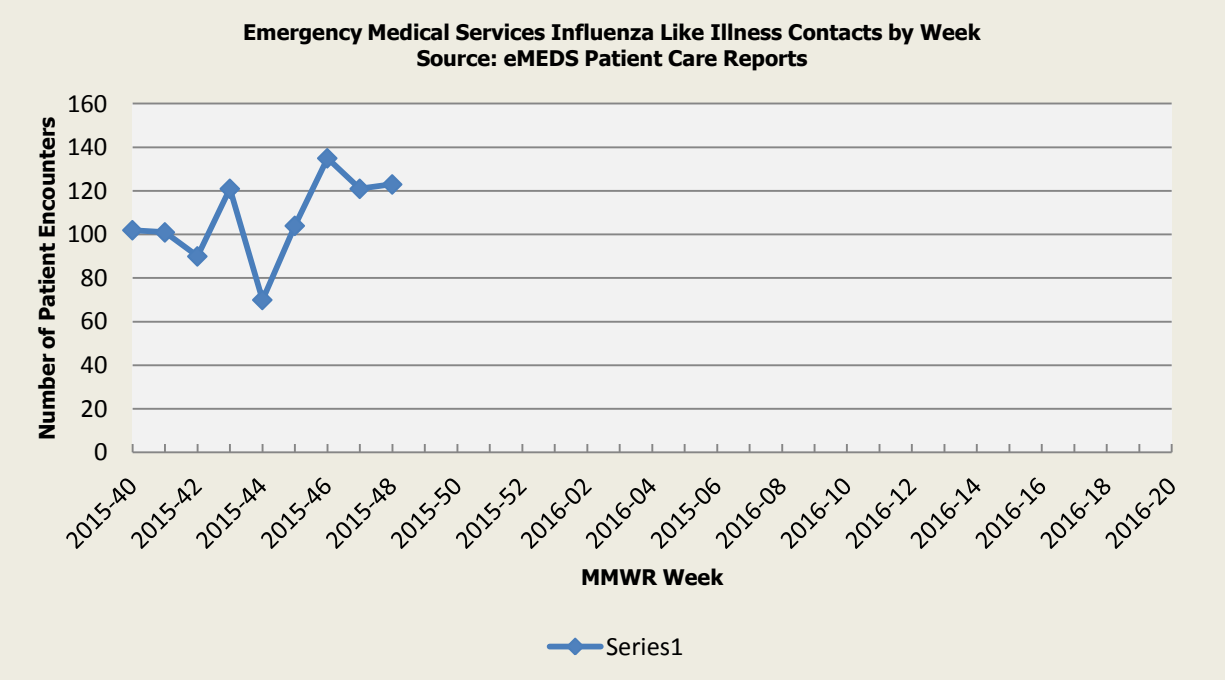
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 48 was: Sporadic Geographic Spread with Minimal Intensity.



	Influenza-like Illness Baseline Data Week 1 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.

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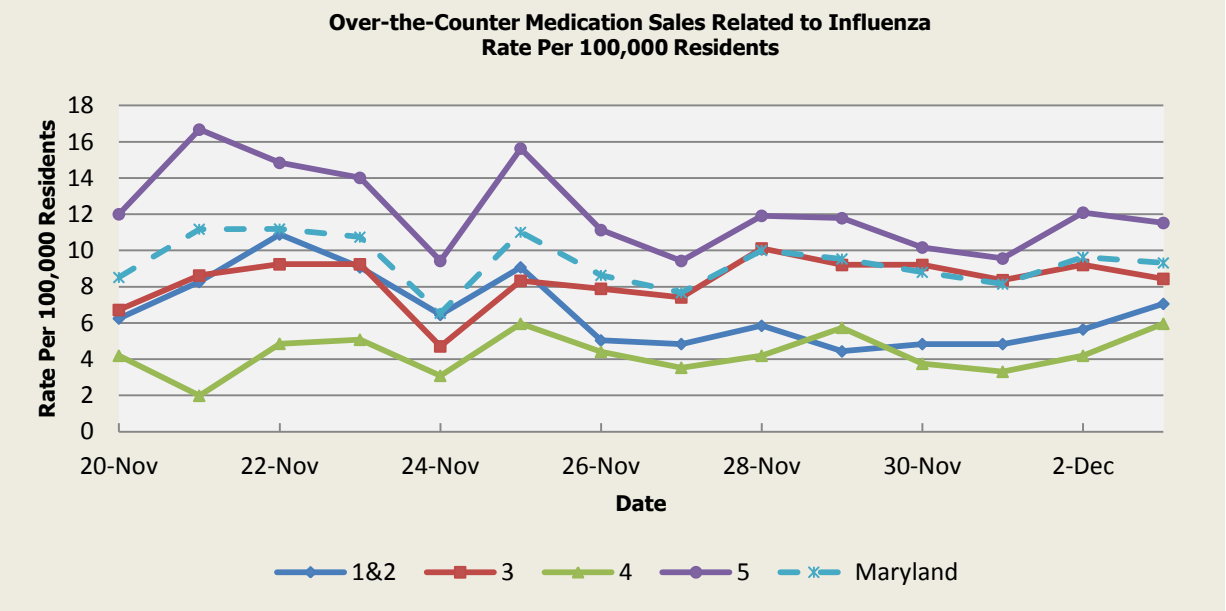
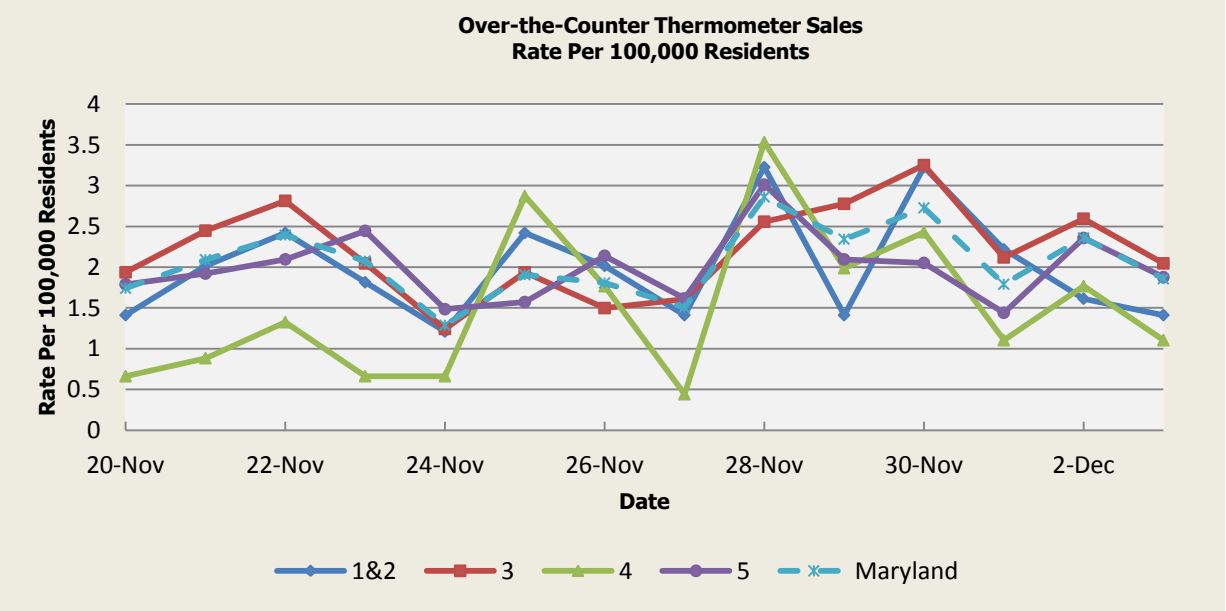


There was an appreciable increase above baseline in the rate of OTC medication sales on 11/21 (Region 1&2,5), 11/22 (Region 1&2), 11/23 (Regions 1&2), 11/25 (Regions 1&2,4), 11/28 (Region 3), 11/29 (Region 4), and 12/3 (Region 5). These increases are not known to be associated with any outbreaks.

	OTC Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	4.69	2.60	8.21	5.79
Median Rate*	2.82	3.98	2.21	7.60	5.19

* Per 100,000 Residents



There was not an appreciable increase above baseline in the rate of OTC thermometer sales this week.

	Thermometer Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.48	3.30	2.54	4.50	3.72
Median Rate*	3.23	3.07	2.43	4.10	3.46

* Per 100,000 Residents

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PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of October 3, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 856, of which 452 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza:

HPAI H5N8 (FRANCE): 6 Dec 2016, France farm ministry officials widened "high risk" restrictions to the entire country after the detection of several cases of the highly pathogenic H5N8 avian flu strain in farms in southwest France and in wild ducks in northern France. A protection zone has been declared within a 3 km radius of the Tarn farm, as well as a 10 km surveillance zone. The H5N8 variant of bird flu, which also hit duck farmers in the Netherlands last month [Nov 2016], is highly infectious for poultry but poses little danger to humans. Read More: http://www.promedmail.org/post/4679949

HPAI H5N8 (ISRAEL): 5 Dec 2016, H5N8 was confirmed in Israel at Moshav Be'er Tuvia and Kibbutz Revadim, just East of Ashdod [HaDarom/Southern district]. Teams from the Agriculture and Rural Development Ministry have been working at the henhouse in Kibbutz Ein Tzurim in Gush Etzion to eradicate the flu that was discovered there. Ministry inspectors continue actively monitor the area. The Veterinary Institute [Kimron Veterinary Institute, Beit-Dagan] is reporting that the subspecies of virus in the recent outbreak is identical to the subspecies that was discovered recently in several European countries. Read More: http://www.promedmail.org/post/4678915

NATIONAL DISEASE REPORTS

LEGIONELLOSIS (NEW MEXICO): 02 Dec 2016, The New Mexico Department of Health (NMDOH) has identified 6 patients from Chaves County with confirmed legionnaires' disease since the first week of October 2016. Two (2) of the six (6) cases have died, a 69-year-old woman and a 65-year-old woman. All 6 patients had other health issues that increased the risk of infection. Investigations of clusters of legionnaires' disease are often not able to identify a common environmental source. Because the patients all live in the same area and their illnesses have occurred during the same time frame there is concern that a common exposure or source of infection may exist. Outbreak investigations of legionnaires' disease focus on where patients may have been exposed to contaminated water in the 14 days before onset of illness. Read More: http://www.promedmail.org/post/4673981

MUMPS (TEXAS, CONNECTICUT, WASHINGTON): 3 Dec 2016, Regional health officials report confirmed cases of mumps at elementary, middle and high schools in the state, a majority of the cases involve students within the Keene Independent School District. Two suspected cases of mumps have been reported at Yale University [New Haven, Connecticut], one in an undergraduate living on campus and one in a graduate student living off campus. Over 90 percent of Yale undergraduates have

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received mumps vaccine, but it is still possible for students or other members of the campus community to contract the disease. King County Public Health officials in Washington reported that the number of mumps cases in the county has grown from 9 to 22 since Wed, 30 Nov 2016. Of those 22 cases, 5 are confirmed and 17 are probable. The county stated that all of the cases are in Auburn [Washington], and 15 of the cases are in children ages 5 to 17. Read more: http://www.promedmail.org/post/4673013

STREPTOCOCCUS (ALASKA): 30 Nov 2016, The Alaska section of epidemiology reported an additional death in Fairbanks for an updated total of four (4) deaths due to group A streptococcal infection, instead of 3, as previously reported. A new strain of group A streptococcus [GAS or _*Streptococcus pyogenes*_] bacteria first identified in Fairbanks [Alaska] in early 2016 has caused an outbreak in Anchorage [Alaska], mainly among the homeless population. At least 28 people in Fairbanks and Anchorage have been hospitalized since the bacteria were identified, and 3 have died due to different invasive diseases. Read more: http://www.promedmail.org/post/4664201

INTERNATIONAL DISEASE REPORTS

MERS-COV (SAUDI ARABIA): 6 Dec 2016, Health authorities from the Saudi Ministry of Health report 4 new cases of MERS-COV, including 2 fatalities, since the last ProMED-mail update on 4 Dec 2016. As of 6 Dec 2016, there have been a total of 1501 laboratory-confirmed cases of MERS-CoV infection, including 621 deaths [reported case fatality rate 41.4 per cent], 863 recoveries, and 17 currently active cases. Read More: http://www.promedmail.org/post/4680560

UNDIAGNOSED BLEEDING DISORDER (CHINA): 3 Dec 2016, Dozens of villagers in east China's Anhui province have fallen ill with symptoms similar to rodenticide poisoning, but investigators are yet to confirm the cause for their sickness. Twenty-one (21) people from 9 families in Xiaokou Township, Taihe County had been hospitalized as of Saturday [3 Dec 2016] with severe symptoms of poisoning, the county's health department said in a statement. Another 15 villagers had milder symptoms and were allowed to return home. The first two (2) cases were reported on 25 Nov 2016, when a husband and his wife were admitted to hospital with seizures, hematemesis, and blood in their urine. Doctors suspected that this was a result of consuming rat poison. The subsequent investigation, however, found no traces of any harmful substance in samples of leftover food and water taken from their home in Maozhuang village. The couple had not dined out or been exposed to harmful chemicals. Similar symptoms were reported by many other villagers over the past week. Read More: http://www.promedmail.org/post/4675611

LEPTOSPIROSIS (DOMINICAN REPUBLIC): 1 Dec 2016, The Dominican Republic Ministry of Health, reported 502 suspected cases of leptospirosis, including 42 deceased persons. Leptospirosis is endemic but the incidence increases during the rainy season. 41 (98 percent) of the deaths occurred in males between 14 and 79 years of age, with a median age of 29 years. A spokesman from the Ministry pointed out that it is thought that the conditions following Hurricane Matthew during the last 4 epidemiological weeks (43rd-46th) and the continuous rainfall that affected the island during the last 2 months have lead to a 5.3 times increase in the lethality rate (of leptospirosis) compared to the same period last year [2015]. Read More: http://www.promedmail.org/post/4673907

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OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMH website:
http://phpa.dhmh.maryland.gov/influenza/fluwatch/Pages/Home.aspx

Please participate in the Maryland Resident Influenza Tracking System (MRITS): http://flusurvey.dhmh.maryland.gov

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

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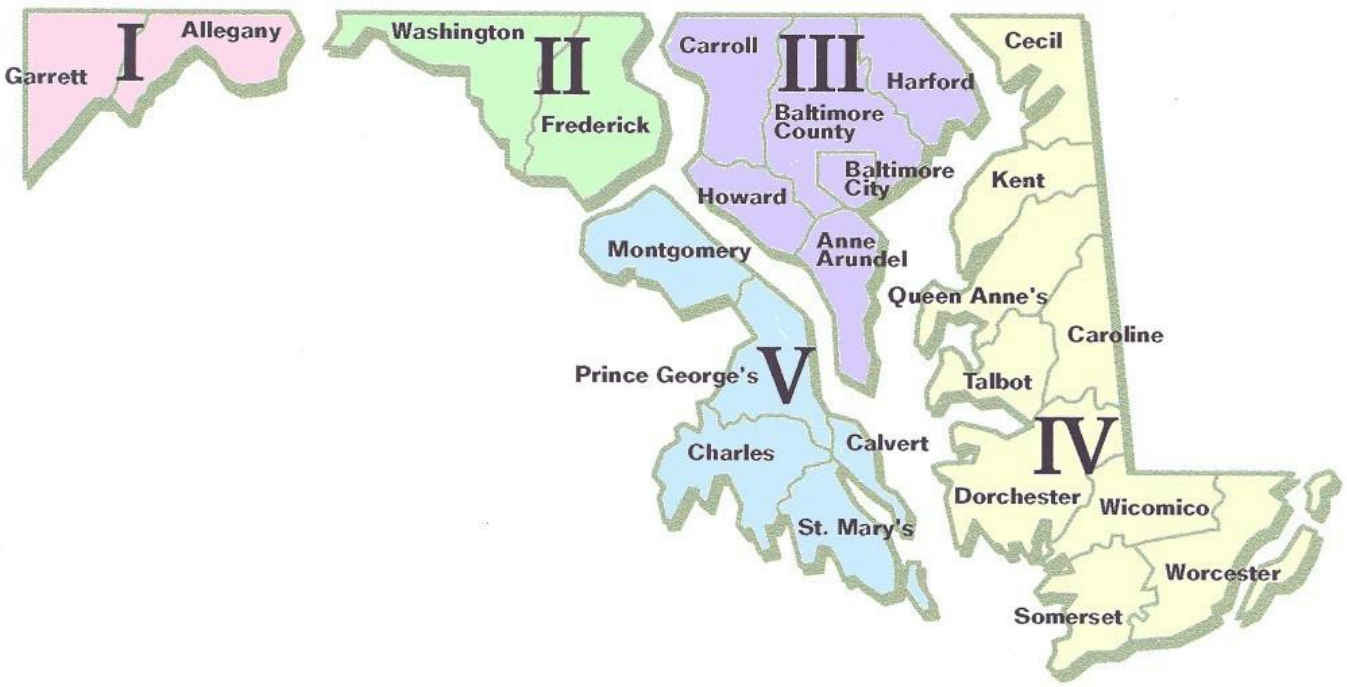
Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County



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